

# Technical Conference

## Design Concepts of Future Electric Transmission



U.S. Department of Energy

### WEBCAST Q&A

(NOT ANSWERED DURING CONFERENCE)

Question	Answer
<p>Is the level of the EHV overlay that some of you support dependent on the "renewable" or "green" standards that Congress will set? And should the overlay be designed based on the resource requirements decided this year, or on an assumption as to what will be required in the future?</p>	<p>These assets are long-term and any design must take into consideration current and long-term National needs.</p>
<p>Is it possible to identify a single vision for integrating renewables and for building the EHV overlay given the varying needs across the country?</p>	<p>Any such vision would have to be based on a number of National interests such as reliability, energy security, efficiency, and economic benefit among others.</p>
<p>If the goal is to reduce carbon, an interesting question is what percentage of the expected renewable generation capacity increase would need to be covered by introduction of new gas and coal units to sufficiently cover reserve concerns and ensure grid reliability? Has any study to this point determined that? Is the answer to this question different depending on what renewable buildout scenario is chosen?</p>	<p>This is an excellent question and one that is receiving a great deal of attention. Numerous studies are ongoing and certainly the answer will vary depending on the buildout scenario.</p>
<p>Panelists have talked about 30-50 year time horizons with the subtext that load will be increasing. Most scientists believe we need to decrease our load, so should not we be planning systems that meet near term goals but start the process of reducing load?</p>	<p>Planning must be based on a range of potential futures. Demand has historically been based on our economic output. In the long-term, that economic output will increase. The generation mix, distributed generation, demand response, and conservation should also be important planning factors.</p>
<p>When a transmission circuit crosses over another transmission circuit, reliability is inherently reduced. Has this been considered in the design of the EHV overlay and what would the structures supporting the EHV circuits look like in height and their ability to assure they do not fall or sag into local AC lines serving large communities of electric users across the rural and urban routes?</p>	<p>These are design considerations that must be taken into account for all transmission.</p>
<p>If FERC doesn't approve the transmission incentives, how does that impact the future of Green Power Express?</p>	<p>DOE declines to speculate on this matter.</p>
<p>The trend seems to be a consolidation of transmission resources. Is it desirable, from the consumer perspective, to consolidate transmission into a relatively few large controlling corporations and their subsidiaries?</p>	<p>I'm not sure there has been enough multi-state transmission built recently to establish a trend.</p>